Application No.: 10/535,419

Attorney Docket No.: Q87995

REMARKS

This Amendment is filed with an RCE, and in responsive to the final Office Action dated

November 30, 2007. Accordingly, favorable reconsideration on the merits and allowance is

respectfully submitted to be proper.

The amendments and how they respond to the objections and rejections set forth in the

Office Action are explained below in detail.

In the present Amendment, claim 7 has been amended by changing the clause "wherein

the catalyst comprises at least one member . . . in which mixtures (1) the component (A)

comprises" to ---wherein the catalyst comprises a mixture of a titanium compound component

(A) with a phosphorus compound component (B), wherein the component (A) comprises---.

Further, claims 7 and 8 have been amended by changing "the mixture (1) to ---the

mixture---.

No new matter has been added. Entry of the Amendment is respectfully submitted to be

proper. Upon entry of the Amendment, claims 7-12 will be all the claims pending in the

application.

I. Response to Claim Rejection Under 35 U.S.C. § 112, Second Paragraph

Claim 7 was rejected under 35 U.S.C. § 112, second paragraph, as allegedly being

indefinite. The Examiner suggested amending claim 7 to recite in relative part, ---wherein the

catalyst comprises a mixture of a titanium compound component (A) with a phosphorus

compound component (B), wherein the component (A) comprises---.

Application No.: 10/535,419

Attorney Docket No.: Q87995

Applicant respectfully submits that the rejection should now be withdrawn, in view of the

amendment to claim 7, which has been amended per the Examiner's suggestion.

II. Paragraph Nos. 2-4: Response to Rejections Under 35 U.S.C. § 103(a)

Claims 7-12 were rejected under 35 U.S.C. § 103(a) as being assertedly unpatentable

over U.S. Patent 6,593,447 ("Yamamoto") in view of U.S. Patent 4,254,018 ("Kowallik") and in

further in view of U.S. 2003/0059612 ("Cho").

The Office further indicated that claims 7-12 are rejected under 35 U.S.C. § 103(a) as

being unpatentable over JP 2003-119619 to Yamamoto ("JP '619") in view of Cho.

Lastly, claims 7-12 were rejected under 35 U.S.C. § 103(a) as assertedly being

unpatentable over WO 03/027166 ("Minobe") in view of Cho.

Applicant respectfully traverses, and respectfully submits that the rejections should now

be withdrawn, including in view of the remarks below.

The polyester multifilament yarn in amended claim 7 is characterized based on the

following elements.

The polyester multifilament yarn in the form of a woven or knitted fabric of the (1)

presently claimed invention comprises, as a principal component, a polyethylene terephthalate

polyester produced by polycondensing a terephthalate diester of ethylene glycol in the presence

of a specific catalyst as defined in the amended claim 7; and

the multifilament yarn has a thickness of individual filaments of 0.3 to 2.0 dtex, a (2)

total thickness of the yarn of 90 dtex or less, and a silk factor (S.F.) of 22 or more, determined in

Attorney Docket No.: Q87995

AMENDMENT UNDER 37 C.F.R. § 1.114(c)

Application No.: 10/535,419

accordance with the following equation (1):

(S.F.) = (Tensile Strength) x (Ultimate Elongation)
$$^{1/2}$$
 (1).

The above-mentioned characteristic features of (1) and (2) enable the resultant polyester multifilament yarn woven or knitted fabric to exhibit good color tone (a high L* value and a low b* value) and a satisfactory silk factor value of 22 or more, and thus to be capable of exhibiting, when the yarn is converted to a woven or knitted fabric usable for sport clothes, a sufficient mechanical strength, a high resistance to fuzzing, a good hand, and a good color tone.

As an initial matter and without conceding to the merits of the rejection, Applicant concurrently submits herewith a verified English translation of Applicant's priority document, JP 2003-077510, filed March 30, 2003. Support under 35 U.S.C. § 112, for each claim can be found in the priority document as indicated in the claim chart below.

Claim	Exemplary Support in JP 2003-077510
	(citations are to the English translation).
Claim 7	Pages 1-3, claims 1-3; page 3 at [0001]; pages 6-8 at [0011]-[0015]; and page 9 at [0017].
Claim 8	Page 11 at [0026].
Claim 9	Page 14 at [0035] - [0037].
Claim 10	Page 14 at [0036] - [0037].
Claim 11	Page 14 at [0038].
Claim 12	Page 22 at [0063] claims 1-3; page 3 at [0001]; pages 6-8 at [0011]-[0015]; and page 9 at
	[0017].

Attorney Docket No.: Q87995

AMENDMENT UNDER 37 C.F.R. § 1.114(c)

JP 2003-077510, pp. 24-26 at paragraphs 69-73).

Application No.: 10/535,419

In Examples 1 and 2 of the JP 2003-077510 application, a reaction mixture which has been prepared by a transesterification reaction of dimethyl terephthalate with ethylene glycol was further mixed with a titanium compound component and a phosphorus compound component, namely a mixture of the Ti compound component with the P compound component, but not a reaction product of the Ti and P compound component with each other. (See Priority Document

Accordingly, Applicant's claim for foreign priority under 35 U.S.C. § 119 (a)-(d) has been perfected. In view of the above, the Examiner is respectfully requested to remove JP 2003-119619 and WO 03/027166 as prior art references, because the publication dates thereof are later in time than Applicant's priority date of March 30, 2003. Withdrawal of the rejection based on JP 2003-119619 and WO 03/0271 is therefore requested. Nevertheless, Applicant further traverses the rejection on the merits based on the following remarks.

U.S. Patent 6,593,447 ("Yamamoto")

Yamamoto discloses a polycondensation catalyst for the polyester polymer. This catalyst described in Yamamoto is a reaction product of a titanium compound component with a phosphorus compound component. Yamamoto is silent as to the use of a polycondensation catalyst comprising a mixture of a Ti compound component with a P compound component, which, in contrast, is a characteristic feature (1) of the present invention.

Further, Yamamoto does not teach or suggest the specific feature (2) of the multifilament yarn of the present invention or the specific advantages of the polyester multifilament yarn of the present invention.

Application No.: 10/535,419

Attorney Docket No.: Q87995

U.S. Patent 4,254,018 ("Kowallik")

Kowallik discloses polyesters containing a freely or chemically incorporated heat stabilizing agent consisting of the chemical formula:

corresponding to the general formula (III) of the present application.

In view of Example 1 of Kowallik, a transesterification product of dimethyl terephthalate with ethylene glycol was polycondensed in the presence of the above-mentioned heat stabilizing agent and a polycondensation catalyst Sb₂O₃ and GeO₂. The polycondensation catalyst described in Kowallik does not contain a titanium compound component as defined in the amended claim 7 of the present application.

More importantly, Kowallik is silent as to both the characteristic feature (1) of the polycondensation catalyst and to the specific feature (2) for the polyester multifilament yarn, of the present invention as claimed in the amended claim 7. Accordingly, Kowallik does not teach or suggest the specific advantages of the polyester multifilament *yarn* of the present invention.

U.S. 2003/0059612 ("Cho")

Cho discloses a drawn polyester multifilament yarns having a silk factor of 22 or more.

However, Cho is silent as to the feature (1) as defined in amended claim 7, and thus does

not teach or suggest the specific advantage of the polyester multifilament yarn as claimed in the

amended claim 7.

JP 2003-119619-A ("JP '619")

The JP 2003-119619 application was filed on October 15, 2001, and was first published

on April 23, 2003, which is after Applicant's priority date March 23, 2003.

JP '619 discloses a process for producing polyester fibers in which process, a

transesterification reaction of a dialkyl terephthalate with ethylene glycol is reacted in the

presence of a tetraalkyl titanate. The resultant reaction product is polycondensed in the presence

of the titanium compound and a metal-containing phosphorus compound, namely a alkali metal

or alkaline earth metal salt of a phosphate ester represented by the general formula (I) in claim 1

of JP '619.

The resultant polyester polymer is melt-spun to provide polyester fibers. The polyester

fibers were is treated with an aqueous alkali solution to dissolve and remove, a portion of the

fibers in an amount of 2 to 40% mass based on the original mass of the fibers and to cause fine

pores to be formed on the surfaces of the polyester fibers.

In claim 2 and Example 1 of the JP '619 application, it is claimed that a phosphonate

compound of the general formula (II) is further added to the polycondensation reaction system.

In this case, the phosphonate compound of the formula (II) of the JP '619 application is used as a

stabilizing agent. (See, JP 2003-119619 at paragraph 29).

In the process described in the JP 2003-119619 application, the phosphorus compound

component of the formula (I) for the polycondensation reaction must be a phosphate alkali or

alkaline earth metal salt. This type of metal-containing phosphorus compound for the JP '619 application process is distinguishable from the present process, and therefore cannot teach or suggest the specific phosphorus compound component of the present invention.

Accordingly, the JP '619 application does not teach or suggest the specific feature (1) of the present invention on or before the priority date of the present invention.

Lastly, the JP '619 application is silent as to the specific feature (2) of the present invention.

WO 03/027166 ("Minobe") (English equivalent being the U.S. Patent 7,189,797 B2)

The present application was first published on April 3, 2003, as an international publication, which is after the priority date of the present application.

Further, Minobe does not teach or suggest the specific feature (2) of the polyester multifilament yarn of the present invention.

In sum, none of the above references teach or suggest the features (feature 1 and 2) of the present invention on or before the priority of the present application. Thus, no combination of the cited documents teach, suggest or provide an apparent reason to combine the teaching of the documents. Even if the documents are combined, they do not teach or suggest the use of feature (1) with feature (2) of the present invention. Thus, the cited documents do not render the present invention obviousness.

Accordingly, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. § 103(a) based on Yamamoto, Kowallik, Cho, the JP '619 application, and/or Minobe.

Application No.: 10/535,419

III.

Attorney Docket No.: Q87995

Response to Double Patenting Rejection

Claims 7-12 were rejected on the ground of non-statutory obviousness-type double

patenting as assertedly being unpatentable over claims 1-8 and 20-21 of U.S. Patent 7,189,797 in

view of U.S. 2003/0059612 ("Cho").

Furthermore, claims 7-12 were provisionally rejected on the ground of non-statutory

obviousness-type double patenting as being unpatentable over claim 1 of co-pending application

10/542,373 in view of Cho.

The Office Action indicated that claims 7-12 were provisionally rejected on the ground of

non-statutory obviousness-type double patenting as being unpatentable over claims 1-7 of co-

pending application 10/541,574 in view of Cho.

Applicant concurrently submit herewith a Terminal Disclaimer to overcome the

obviousness rejection based on U.S. Patent 7,189,797.

Regarding the provisional rejections based on co-pending applications, 10/542,373 amd

10/541,574, Applicant respectfully requests that these rejections be held in abeyance until

allowable subject matter has been indicated in one the applications.

IV. <u>Conclusion</u>

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby earnestly solicited.

Application No.: 10/535,419

Attorney Docket No.: Q87995

If any points remain in issue which the Examiner feels may be best resolved through a

personal or telephone interview, the Examiner is kindly requested to contact the undersigned

attorney at the local Washington, D.C. telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC

Telephone: (202) 293-7060

Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: April 30, 2008